

**METHOD AND SYSTEM FOR SUPPORTING SOFTWARE PIPELINING USING A
SHIFTING REGISTER QUEUE**

ABSTRACT OF THE DISCLOSURE

5 A system for supporting software pipelining using a
shifting register queue is provided. The system includes a
register file that comprises a plurality of registers. The
register file is operable to receive a shift mask signal and a
shift signal and to identify a shifting register queue within
10 the register file based on the shift mask signal. The shifting
register queue comprises a plurality of queue registers. The
register file is further operable to shift the contents of the
queue registers based on the shift signal.